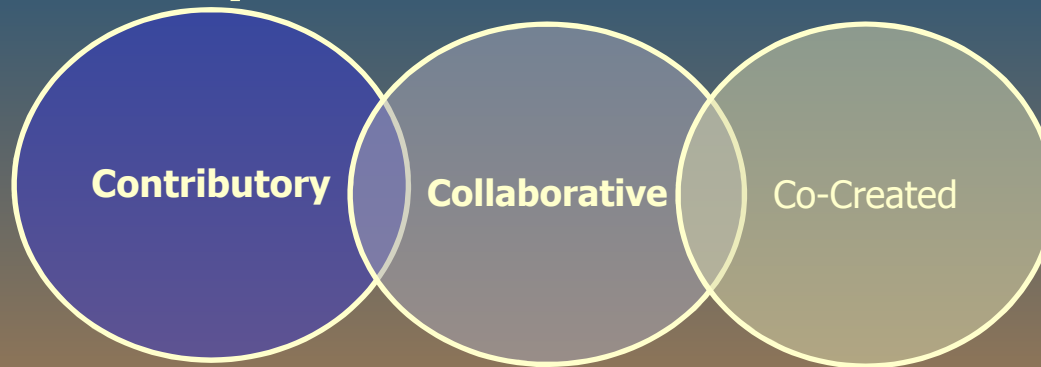


Cooperative Extension Volunteer Monitoring: Contributory - Collaborative Programs



Linda Green

Extension Volunteer Monitoring Network
2014 National Water Quality Monitoring Conference



Alphabet Soup of a Federal Program

- ❖ USDA
- ❖ NIFA = National Institute of Food and Ag.
 - ❖ (formerly known as CSREES)
 - ❖ Cooperative Extension
 - ❖ Land Grant University
 - ❖ 1862's – 1890's – 1964's
 - ❖ Federal – University – State
 - ❖ Community Framework - County Offices

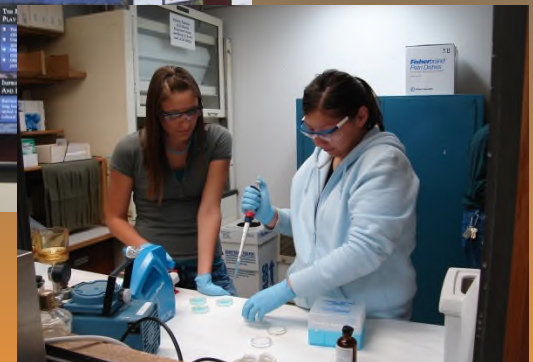


Cooperative Extension: Bringing research to people

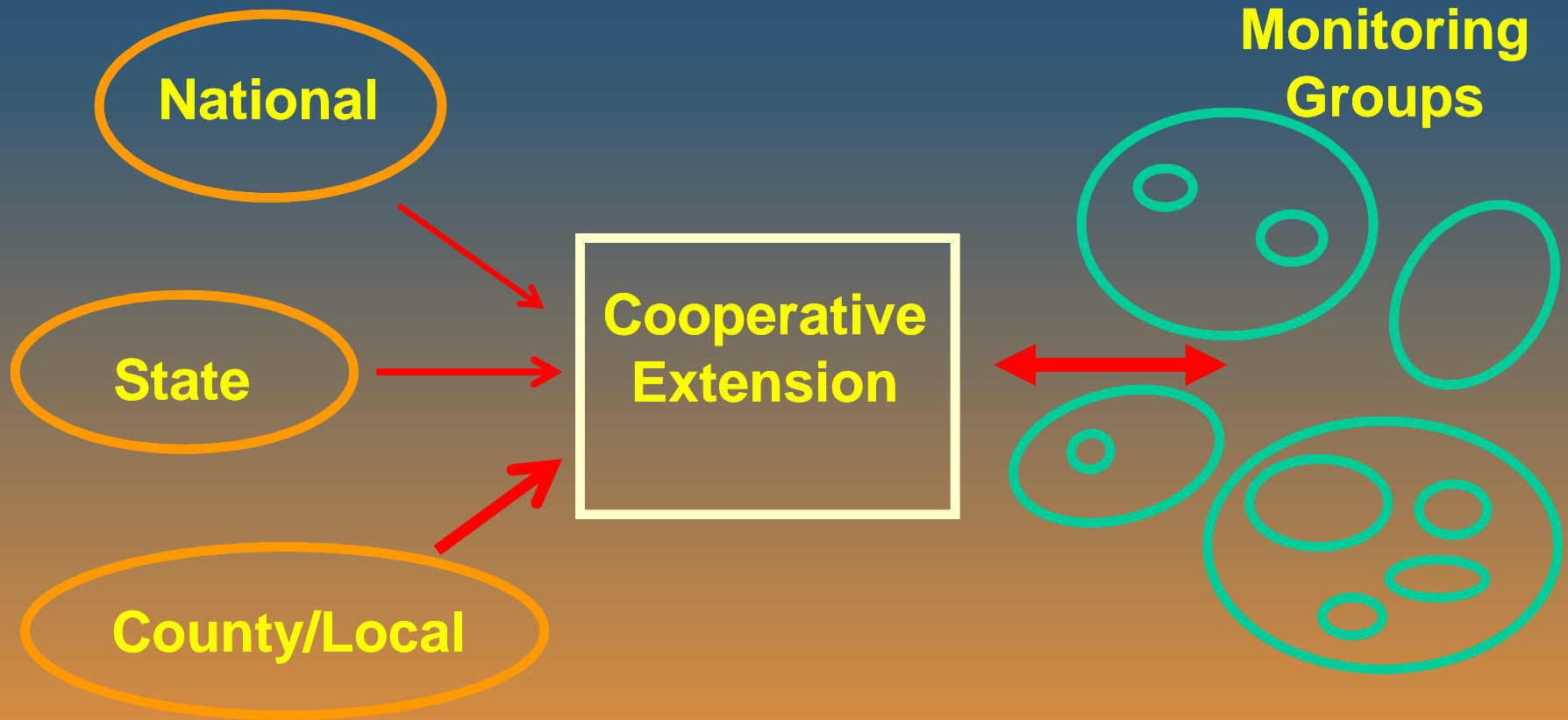
- ❖ Extension means reaching out
- ❖ Solving public needs via >100 Land Grant universities/colleges
 - ❖ Deliver science-based information
- ❖ 2900 county & regional Extension offices - rural, suburban, urban

Wide Range of Programs

- ❖ Youth education – underserved audiences
- ❖ Local community
- ❖ County to state to tribal



The Cooperative Extension "System"



Three Levels of Extension Support of Volunteer Monitoring

- ❖ Affiliated with - 28
- ❖ Sponsored by - 29
- ❖ Strictly a service provider - 2



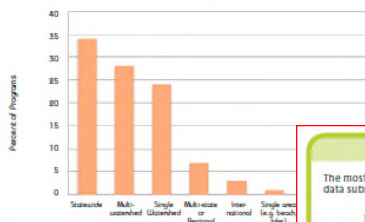
ASSESSING THE NEEDS OF VOLUNTEER WATER MONITORING PROGRAMS



Survey Results & Implications

Geographic Scope of Programs

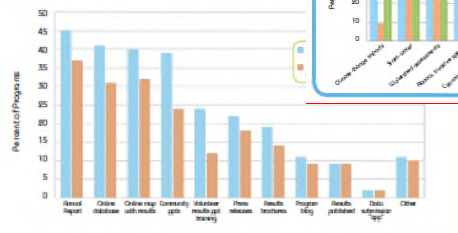
Most of these programs operate statewide rather than across smaller or larger scales.



Extension Volunteer Monitoring Network
www.usawaterquality.org/volunteer

Data Sharing

The most common type of data sharing is an annual monitoring data submission with mobile technologies was still uncommon.



Emerging Monitoring Concerns

Monitoring the effects of climate change and stormwater topped the list of potential endeavors for programs. To facilitate resource and knowledge sharing, a table identifying programs that address the topics listed in below is available at: <http://www.usawaterquality.org/volunteer/>

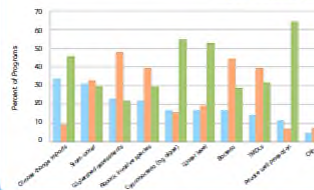


Figure 6.

ASSESSMENT RESULTS



Students at Lake Erie State University are participating in a water monitoring project as a community service project. (Photo: Lake Erie State University)

SETTING THE STAGE for Great Lakes Tribal Volunteer Water Monitoring

Summary and conclusions

- Overall, volunteer water monitoring appears to be supported by Great Lakes area tribal communities as a possible tool for meeting water resource management goals.
- Volunteer water monitoring can be described as trained lay persons, utilizing water monitoring over time using cost and affordable methods. Nonpoint source pollution, safe drinking water and invasive species are considered primary threats to Great Lakes tribal water resources. Buffering fish, the top parameters suggested for volunteers to monitor were: invertebrate species, plants and animals impacted by invasive species, nonpoint source pollution and water parameters that would provide details about the impact of nonpoint pollution (e.g., chlorophyll-a, dissolved oxygen, E. coli, mercury, manganese).
- Currently less than 10% of Great Lakes tribal communities participate in volunteer water monitoring. In order to encourage or participate in such programming, tribal communities need: education and training, organizational assistance or a program structure to adopt, as well as funding for staff and equipment.

Figure 6. Barriers to tribal community involvement in volunteer water monitoring

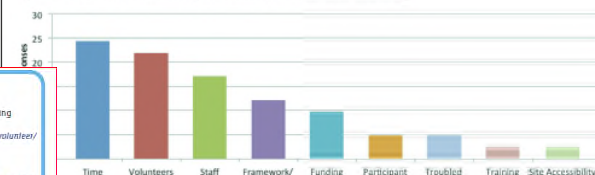


Figure 4. How do you think data generated from volunteers can be used?



Connections with Volunteer Monitoring

- ❖ Educational materials (70+%)
- ❖ Technical assistance (60+%)
- ❖ Conducts trainings (60%)
- ❖ Provides equipment, manpower (45%)
- ❖ Umbrella org./service provider (42%)
- ❖ Collaborator (no funding) (37%)
- ❖ Program sponsor or co-sponsor (35%)
- ❖ Funding source (35%)

Dual Roles for Volunteer Monitors

Community Educators & Stewards

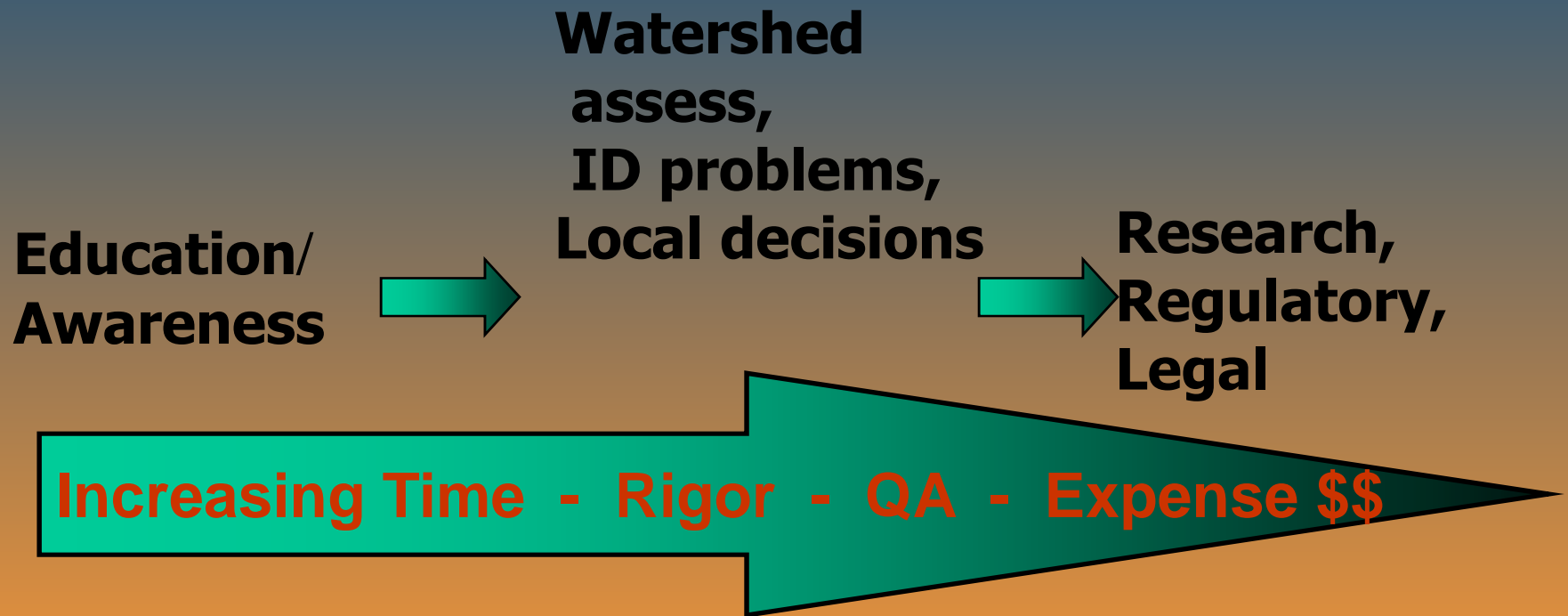


Citizen Scientists



Photos from (NC) Watershed Watch

Continuum of Volunteer Monitoring Programs



Continuum of Volunteer Monitoring Programs



**Education/
Awareness**



**Watershed
assess,
ID problems,
Local decisions**



**Research,
Regulatory,
Legal**

Increasing Time - Rigor - QA - Expense \$\$

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Volunteer Water Quality Monitoring Programs in the US

Blue= Extension-connected Volunteer Water Monitoring Programs
 Green= Master Naturalist Programs
 Yellow= Volunteer Water Monitoring Programs
 Red= Service Providers

Public · 6 Collaborators · 16,324 views
 Created on Feb 21, 2013 · By · Updated Apr 8
 ★★☆☆ 1 ratings · [Write a comment](#) · [KML](#)

Alabama Water Watch
 Last Updated by Kris S. on Aug 13, 2013

CE-Sponsored
Alabama Water Watch (1992)
 Dr. Bill Deutsch
 Auburn University
 250 Upchurch Hall
 Auburn, AL 36849-5419

As of late August 2013:
 Auburn University Water Resources Center
 559 Devall Drive
 Auburn, Alabama 36830
 Phone (toll free): 1-888-844-4785
 Fax: 334-844-3666
 Email: awwprog@auburn.edu

[Directions](#)
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Save the Date for the 2014 AWW Annual Meeting, June 28!
[Click Here for Details](#)

Dedicated to Community-Based Watershed Stewardship through Citizen Volunteer Monitoring

Alabama Water Watch (AWW) is a citizen volunteer, water quality monitoring program covering all of the major river basins in Alabama. AWW is a part of the [Global Water Watch](#) network.

The AWW vision is to have a citizen monitor on every stream, river, lake and coast in Alabama. The goal of AWW is to foster the development of statewide water quality monitoring by:

- Educating citizens on water issues in Alabama and the world
- Training citizens to use standardized equipment and techniques to gather

DATA ENTRY

SUPPORT AWW

EVENT CALENDAR

AWW SUCCESS STORIES

GLOBAL WATER WATCH

WORKSHOP REGISTRATION

AWW AWARENESS BLOG

[AWW Data Makes Swimming at Your Favorite Water Hole Safer](#)

[Want to keep yourself and your loved ones](#)



Applying knowledge to improve water quality

Volunteer Water Quality Monitoring

National Water Resource Project

A Partnership of USDA NIFA
& Land Grant Colleges and Universities



Home of the Extension Volunteer Monitoring Network

Volunteer Monitoring National Water Resource Project

Project Description (382 K pdf file)
Nationwide Inquiry Results **NEW!**
Outreach Materials and Activities
Online Databases
Training Modules

Extension Volunteer Monitoring Network Programs

National Volunteer Water **NEW!**
Monitoring Program Directory
Extension-connected Programs
Master Naturalist Programs
Job postings

Researching and Validating Volunteer Monitoring

Validation Studies
Other Volunteer Monitoring Research

Related Research and Educational Efforts

**Select Archives of Volunteer
Monitoring Listserv Discussions**
Publications

Tribal Initiatives

Great Lakes Survey
Great Lakes Tribal Water Summit

Other National Water Resource Projects

NEMO
Other Water Resource Projects



Upcoming Events ➔

[ANROSP Conference](#)
Nov. 4-7, 2013
Ocean Springs, MS

[Maryland Water Monitoring Conference](#)
December 5, 2013
Linthicum Heights, MD

[National Monitoring Conference](#)
April 28-May 2, 2014
Cincinnati, OH

Guide for Growing Programs

Getting Started (234 K pdf)
**Why Monitoring
Makes Sense** (582 K pdf)
**Designing Your
Monitoring Strategy** (1.6 M pdf)
Monitoring Matrix (80 K pdf)
Effective Training (856 K pdf)
**Monitoring
Equipment Suppliers** (437 KB pdf)
**Direct Links to Monitoring
Programs' Manuals (online)**
Building Credibility (342 K pdf)
**Sharing Information Through
Internet Exchanges** (127 K pdf)
Volunteer Management (1 M pdf)
**Planning Your Program's Data
Management System** (560 K pdf)
**Tips and Tools for
Effective Presentations** (541 K pdf)
Outreach Tools (464 K pdf)
Fundraising (690 K pdf)
Bacteria Monitoring Intro (468 K pdf)
**Methods for Monitoring Bacteria
in Surface Waters** (916 K pdf)
**Presenting Bacteria Monitoring
Data Effectively** (522 K pdf)
**Evaluating Your Volunteer Monitor-
ing Program** (404 KB pdf)

Of Special Interest

Nationwide Inquiry Results **NEW!**
National Volunteer Water **NEW!**
Monitoring Program Directory
Secchi Dip-In
Volunteer E. Coli Monitoring Project
Volunteer Monitor Newsletter
World Water Monitoring

Thanks to inspirational colleagues



...outstanding in (& on) the water

Providence Journal photo